

Title (en)
Electron source for multibeam electron lithography sytem

Title (de)
Elektronenquelle für ein Mehrstrahl-Elektronenlithographie-System

Title (fr)
Source d'électrons pour un système multifaisceaux de lithographie par électrons

Publication
EP 0772221 B1 20001213 (EN)

Application
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Priority
US 51326195 A 19950810

Abstract (en)
[origin: EP0772221A1] An electron source (30) including two dimensional arrays (20) of electron emitters (22) positioned in groups (32) of arrays (20), common control electrodes (33) mounted adjacent associated groups (32), and electrical connections (37, 38) to the arrays (20) in each group (32) connecting the emitters (22) in each array (20) in parallel and connecting each array (20) in each group (32) to a similar array (20) in each other group (32) so as to form rows (36) of arrays (20) equal in number to the number of arrays (20) in each group (32). The groups (32) are positioned along a first axial direction and arranged with the arrays (20) in each group (32) spaced apart in a second direction, at an angle to the first direction, so that the arrays (20) are evenly spaced in the first direction. In one embodiment dummy control electrodes (74) are used at each end of the structure and in another embodiment a field compensating electrode (34) is provided on opposite sides of each control electrode (33) and a surrounding electrode (35) extends between adjacent field compensating electrodes (34). <IMAGE>

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